

Proper Use of the Name *Filix*

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The older writers on plants had but a few fern names. Of the names used by them the name *Filix* was probably the most popular. It was ultimately used for many species of ferns, especially after European botanists began to study tropical ferns. In the early days, however, its use was very largely, if not entirely, confined to two very common and well known European ferns. One of these ferns was *Filix mas* or the male fern, and the other was *Filix foemina* or the female fern. And here let me say that the female fern of all writers before the time of Linnaeus as far as I have seen was the bracken (*Pteris aquilina*), and not the fern which is now called the female fern (*Athyrium filix-foemina*).

The very early writers did not have ideas of genera, and genera divided into species, as a basis of nomenclature developed as it is now. When we speak of an oak we are not thinking of classification, but we are merely identifying an organism. Similarly when the early writers named a plant in Latin they were merely identifying plants, and at first were not attempting to build up a system of classification.

As time went on and a system of classification became more and more necessary the old Latin names of plants naturally came into use as the names for genera and species. But side by side with their use for this purpose, their use in the old popular sense continued. For example, when a writer referred to and described either (1) the male fern or *Filix mas* or (2) the female fern or *Filix foemina*, it did not necessarily mean at all that he was attempting to describe a genus *Filix mas* or a genus *Filix foemina*. He was in fact merely giving

vernacular names in English and also in Latin. This kind of use persisted for centuries, especially in popular or medical works. And one should never think of treating a name so used as a technical generic use. The point is of present practical importance when later on I will come to deal with the name *Filix* as used in Hill's Family Herbal published in 1755.

The male and female ferns were favorite subjects for study and illustration by the early writers, and one can find a number of illustrations of both species. The earliest I have seen are in that marvelous work of Fuchs, *De historia stirpium*, published in 1542. He gives accurate and beautiful large-size illustrations of both *Filix mas* (p. 595) and *Filix foemina* (p. 596). The copy of the work I saw had the illustrations colored by hand, and considering the time it was published and the previous state of botanical knowledge it is certainly to be regarded as one of the great botanical works of all time. It is a pleasure to know that the beautiful genus *Fuchsia* is named after its author.

Matthiolus *Commentarii . . . Dioscorides* (p. 640, Italian edition of 1560; p. 1290-1, edition of 1565) likewise illustrated the same two ferns under the same names; as also did Lobel (*Stirpium Icones* 812, 1581); Dalechamps (*Hist. Generalis* 1222, 1587); Tabernaemontanus (*Kreuterbuch* 2: 500, 1613; and p. 1181, edition of 1687); Dodonaeus (*Pemptades* 462, 1616); and Parkinson (*Theatrum Botanicum* 1031, 1640). Tournefort (*Elem. Bot.* 428, pl. 310-313, 1694; *Institutiones* p. 536, pl. 310-313, 1719) also lists them both, although his plates do not illustrate the bracken.

A considerable number of other authors of the period could be cited to the same effect, but the above will be sufficient to show how universally the names were in use by many generations of scientists.

When, however, it came to Linnaeus we find him giving up the name *Filix* altogether, and applying to the bracken the name *Pteris*, while the male fern went into his all-embracing conception of *Polypodium* (Hort. Cliff. 473, 475, 1737; Gen. Pl. 780, 784, 1737). And this is the arrangement which he kept to in the works which form the starting point for present day nomenclature (Sp. Pl. 1073, 1090 (1753); Gen. Pl. Ed. 5, 484, 485 (1754)).

After 1753 the name *Filix* was used by authors as follows:

I

The first use of the name *Filix* after 1753 appears to have been by Hill in his Family Herbal (p. 171) published in 1755. This was a non-scientific work in which Hill gave no generic descriptions. It was a work in which Hill used the names male fern or *Filix mas* and female fern or *Filix foemina* in the vernacular sense, just as they had been in use for centuries before. He had no intention whatever of using the name *Filix* as a generic name.

In fact Hill had ideas of his own about generic names. He was very fond of a peculiar system of double headers; and so in his more formal work, the British Herbal (which appeared the next year, 1756, and which must have been in largely completed condition when his Family Herbal was issued) we find two genera characterized by him, as such, one called *Filix mas* (p. 527), and another *Filix foemina* (p. 528), and under both of the genera so named by him he gave various species.

I do not see the slightest justification for the statement of Mr. O. A. Farwell that "The names *Filix mas* and *Filix foemina* as here (Family Herbal) used by Hill must be considered as true binomials and not in any

sense as generic names as employed by him a year later in the British Herbal'' (Rep. Mich. Acad. **18**: 81, 1916). And I cannot follow him in using the name *Filix* on any such basis for the genus called by other scientists *Thelypteris*. If Hill had any thoughts of fern genera at all in the Family Herbal he must have had the same two genera in mind as he had a year later and these were *Filix mas* and *Filix foemina* and not a genus *Filix*.

II.

The next use of the name *Filix* was I believe by Ludwig in 1757. On page 142 of his Institutiones he has an analytical key, of which the following words and phrases are in point: "I. Terrestres. A. Herbaceae. IV. Epiphyllispermae folio. b. magis composito. 2. pin-nato, pinnulis a ad neruum usque sectis FILIX."

On page 149 Ludwig gives "Filix ramosa, foliolis pin-natis" as a species of *Filix*. This refers to the bracken. "*Filix ramosa*" with various additions, was the technical scientific name of the bracken in the old nomenclature, and the last part of Ludwig's phrase "*foliolis pinnatis*" is part of the Linnaean description of the bracken (Hort. Cliff. 473).

As far as I can see Ludwig's publication fully complies with all codes of nomenclature, and the name *Filix* should be regarded as a synonym of *Pteris*, if *Pteris aquilina* is taken as the type of the genus *Pteris*. If *Pteris aquilina* is not taken as the type of the genus *Pteris* and it is treated as belonging to a distinct genus, the proper name of such genus is *Filix* and not *Pteridium* Scop.

III.

The next use of the name *Filix* was by Adanson (Fam. Pl. **2**: 20, 557) in 1763. His description of *Filix* as I

read it is "Paquets de fleurs ronds, disposés sur 2 rangs sous chaque division des feuilles. Enveloppe 1 valve. Globules environnés d'un anneau elastique." (p. 20.)

On page 19 he says (here somewhat freely translated) :

"In studying the various points to be considered, one is convinced that the male fern, *Filix non ramosa*, the *Filix montana argute denticulata*, and some others which are confounded with the genus *Polypodium*, and the *Filix mollis glabra*, which has been made a kind of *Acrosticum*, form a genus distinguished from all others. Likewise the *Filix baccifera* and the *Filix minor non ramosa*, of which two species of *Polypodium* have been made, form one special genus. The *Polypodium angustifolium folio vario*, and some others are mingled in the order of *Osmondes*; the *Acrosticum* and the *Scolopendrium* or *Lingua cervina* ought to be placed in the same genus. The *Filix lusitania Polypodii radice*, which has been made a kind of *Polypodium* is at least very near to the genus *Adiantum*; finally the *Polypodium* and the *Lonchitis* are two species of the same genus; the *Ceterach*, the *Trichomanes* and the *Ruta Muraria* are only but one genus."

On page 558 we find the following :

"*Filix* Fuchs. Page 20.
Pteris Diosc.
Pterineon Diosk.
Anasforon Diosc.
Dasuklonon Dios.
Fanaria Rom.
Laculla Rom.
Osmundula Lonic.
Filix baccifera Corn. 5.
 Mor. s. 14 t. 3 f. 10
 Fougère Gall."

The figures of Cornut and of Morison are both excellent figures of *Cystopteris bulbifera*, and the description

of *Filix* by Adanson applies to this species. The language quoted from page 19 also shows that he had this species directly in mind. On the other hand in the latter part of his work Adanson says he took the name *Filix* from Fuchs. As I have already stated near the commencement of this paper Fuchs had but two species *Filix mas* and *Filix foemina*. Adanson (p. 20 and 551) treated *Filix mas* as belonging to the genus *Dryopteris* or *Druopteris*, and treated the female fern, *Filix foemina*, as belonging to his genus *Thelypteris* (p. 20 and 610), thus not leaving any of the genus as treated by Fuchs. Under this confused state of facts we will probably most nearly accord with what Adanson had in mind should we eliminate his reference to Fuchs, and treat *Filix bulbifera* as the type of a genus *Filix* Adanson. But as this name is a homonym of *Filix* Ludwig it is not to be used.

In conclusion let me refer any who object to the use of the name *Filix* at all to the words of probably the greatest authority on old botanical matters. I refer to Haller, the author among other great works of *Bibliotheca Botanica*, a wonderful source of information about old botanical literature.

In keeping up the name *Filix* in place of the Linnaean *Pteris* he says (*Stirp. Indig. Helv. Inchoata* 3: 7. 1768).

“Retinemus antiquissimum, & celeberrimum veterum nomen, cum optima classica nomina habeamus, & Filicem vocamus stirpem ejus classis inter Europeas speciosissimum.”

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